

BARRIERS TO SUCCESS: What are some of the challenges for students and faculty whose first language is not English?

By

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This question was recently posed to a group of students and faculty as a quick-response question in different group meetings on different days, which includes a graduate class in Civil Engineering, and also internally via email to some professors and staff on our campus. Although the statement above is quite clear, yet, it evoked some confusion simply because here in Puerto Rico, the most prevalent language is Spanish, not English. In other words, a small group responded by interpreting the question within the Puerto Rican context as “What are some of the challenges for students and faculty whose first language is not Spanish – for them to be successful in Puerto Rico?” And sometimes a response appeared evasive, particularly with regard to the use of English in Puerto Rico, because it may perhaps be seen as having political undertones. Some of the *verbatim* responses received were as follows:

- The answer is simple. These are the same as those for the people from France, Germany, Spain, Italy, Mexico, China, Japan, Brazil, Russia, Egypt, Arabia, Chile, etc.
- Recruiting foreign language speaking professors without a serious understanding or commitment on their behalf to learn Spanish and to teach in Spanish in a certain period of time is a great barrier and an obstacle against Spanish speaking students.
- Usually non-Spanish speakers come from a different culture. This, ideally, should be a good thing so that we can see and appreciate the diversity of the peoples of the world. It can also become a major obstacle, in terms of relating to students, faculty and non-faculty staff..... Faculty meetings and discussions (including email discussions) are usually held in Spanish. Many times students have a hard time following a person speaking English with a strong accent.

However, the majority of the respondents clearly recognize the importance of knowing English well, and how the lack thereof can hold them back. There are many who feel that it is not simply a language issue, but in also being proficient in communication skills, in both English and Spanish. Cited below are some examples, which were edited for brevity

and consistency where it became necessary; however all responses, with the exception of one, were provided in English:

Individual Comments from Faculty & Staff:

- Unable to clearly convey complex ideas, mainly related to research and other scholarly subjects. Depending on the individual, a broken English can self-marginalize the student/faculty in a critical discussion of a given subject, for instance in important meetings, in decision-making circumstances, etc. Lack of access to a fair review process, as reviewers (or dissertation committee members) can be less patient with a document with faulty English.
- Writing is a main issue. The problem is so terrible that companies have stated they need to work with speaking and writing. Of course, we try with them but when they come to the institution with limited English, we cannot do miracles!! They are not prepared in Spanish which, if they were, they could transfer the skills, so they have a double whammy with writing English as a second language. *Organizing thoughts in writing* - lack structure, skills; *Finding a thesis* - critical thinking is sometimes not there; *Cultural* - PR beat around the bush, they have long sentences and have too many details, whereas, the US is more concise; *Lack of worldview* - need more current events (they taught this at schools in US); *Lack of reading skills* - students do not read, lack reading culture.
- Language fundamentals are better learned at the elementary level. Our pre-college experience, which is fundamental for future academic and professional development, is far from intensive, competitive and formal. Extreme limitations in secondary education bring extraordinary handicap for the college and post college experiences. Communication skills (written and spoken) either in English or Spanish are not well developed neither by the students nor by some faculty members. The dual language (spanglish) that we use is not bilingualism. That might have something to do with our shortcomings in both languages. Conversational English has not been a priority item in our curricula. Communication skills are much more than know a language. There are people who can really speak...but they cannot listen. Could it be that we are collectively inclined in that direction? This has more to do with attitude, and not necessarily with the language.
- The challenge is that a student may not fully understand a test question, or a video conference, or textbook, and therefore won't do as well academically; although, intellectually has the capability, but it will not show on his/her grades. I've had a few Colombian students with this problem, some have taken conversational seminar in English in the States or here at UPRM, and have improved a lot; others not so much, but it's an opportunity to grow as a professional because they all will eventually benefit from writing/speaking better English.
- I have had to go over the theses of my students (both from Puerto Rico and Colombia) as many as ten times to make grammatical corrections. Last year, I threw away a box of papers, full of corrections to a thesis (this was a Puerto Rican student who obtained her BS at UPRM). Our students have very poor writing skills (both UPRM and foreign students). GRE statistics consistently show low

results. This then makes us less productive in publishing, since we are spending our time on a thesis (that is copyrighted by the student), instead of working on our publications. Henceforth, I will be making only a couple of corrections to a student's thesis as a courtesy. It will be up to them to get help on English corrections as I will not be signing until they are properly written. I think that part of the problem is that they do not value the corrections that I make. I may make a correction, but I will see them continue to make the same error in other chapters of the thesis. Thus, I think that it's important for them to seek help, so they start recognizing the value of written communication.

- I don't know, a lot of students here have Spanish as their first language and they succeed in grad studies. Some of them even venture to write their theses in English to gain the experience and to be able to deliver their product to the broader scientific community. However in the field of proposal submission, I see that faculty that are proficient in English (regardless of it being first or second language) have better success rates than others. The former also tend to submit more proposals/year. In my opinion in terms of proposals, the underlying science is the key but it has to be supported by the proper English writing skills. English speakers have an edge there. Knowing English is certainly a plus and I think that in science it translates to a bit of an advantage. However, in this University with all the pampering given to students, some can even complete a Ph.D. in Science or Engineering without the ability to write a cohesive sentence in either language.
- I believe that the challenges for students (and faculty) whose first language is not English depends on the extent (and quality) of exposure to the English language. My first language is not English, but I have been educated in institutions where the medium of instruction was always English. This has, perhaps, given me the ability to overcome possible barriers that the language might have placed otherwise. As about my experiences with teaching in Mexico and now in Puerto Rico, I find that English does intimidate many students. However, I have found that, often, students are unable to overcome this mental-block to be able to put in the effort to try and work their way through with English. As a graduate student in the United States, I have seen international students from non-English speaking countries struggle with the course work, especially when it comes to writing papers and reading academic articles. I believe that while constantly giving students the opportunity to continue avoiding English (and using the students' first language instead) we might be able to "help" them in the short-term but "cripple" them over the long-term. Since most academic literature is published in the English language, I think it is our responsibility as instructors to facilitate the students getting at ease with English. Finally, I believe that learning a new language might initially seem like a painful task. However, after going through the process, the benefits far outweigh the costs.
- Science (July 6, 2007) recently carried an article about global undergraduate education in STEM. One of the main messages was that it is not possible to have a truly successful career in the sciences and technology without a degree of fluency in English. Many academic programs in Europe and Asia, especially at the graduate level, but also at the undergrad level, are converting to part or all-English (even places as language-proud as France!). Why? Because they

recognize that this is the only way to produce graduates who will be competitive in the real world, whether in the private sector or academia. For better or worse, today's reality is that English is the language of science. China, Korea, Japan and the European countries publish their most prestigious journals in English. I see more resistance to this idea in Latin America. Brazil is perhaps the exception. I know of no international scientific meetings conducted in a language other than English. One cannot interact at an international level without skills in this language. Here at UPRM I feel that we do a huge disservice to our students by not insisting that students develop better reading and SPEAKING skills in English. In my 25+ years of experience in UPRM, I would judge that as few as 30% of our students have reasonable English language skills. At the level of the Office of Graduate Studies we are also at fault. Supposedly there is a requirement for an applicant to have a "working knowledge" of both English and Spanish. But we do NOTHING to assure that those whom we admit in fact have those skills (and believe me, they usually don't). I teach all my courses in Spanish. But every once in a while I will pause and ask the students something in English. It does not matter if I'm with a group of undergrads or graduate students, my finding is that in general, virtually no one would understand me if I were giving my course in English. And now, a number of Colleges are proposing Ph.D. programs. I am familiar with two of these proposals (the Biotechnology and Tropical Agriculture proposals). Neither addresses the issue of the need for graduates of the program to demonstrate English fluency. And these are Ph.D. programs in the SCIENCES! My fear is that we will create Ph.D. programs that are a refuge for those who have weak language skills.

- The students whose first language is not English experience a lot of difficulty in the university because many of the books are in English and many professors speak only English. To understand the material we need to have a dictionary by the side; consequently, we learn the material more slowly and less effectively. Many times students receive bad grades in exams because they are in English. This means that although they may understand the material, the students do not fully understand the concepts in English. And for not knowing English well, the student loses good employment opportunities. On occasions, the treatment is not equal and may even lead to discrimination.
- Most text books are in English so they will need more time to study and be successful. Also they need to practice their English and improve it while they are here and they do not do it. There used to be an English course and I am not sure if there is still one, but they need to improve their talking skills and communications skills. I ask them to do a presentation in English every year in my course, but this is not enough.

Pooled Response from 26 Students (all translated from Spanish):

- Difficulty in understanding technical vocabulary in books, and interpreting journal papers and reports written in English; most of the principal technical textbooks are in English; time not adequate to study two languages as too much time is spent on translation; certain terms do not have a direct translation.

- Challenge to understand professors who teach in English; difficulty in communicating with professors of other nationalities if the student does not practice frequently in English; fear of committing excessive errors; many professors on our campus do not speak Spanish; the need to be more attentive so as to not miss the details; the differences in pronunciations between English (which stresses on consonants) and Spanish (which stresses on vowels).
- Language is not an issue. The important thing is to master the language and use it correctly. One can learn many languages, which provides a competitive edge. This world is full of competitions. The more languages I learn, and the more I prepare, the fewer barriers I will encounter. In other places, like in Europe, the students can learn up to four languages. More emphasis should be given to the use of English through basic and advanced courses because of the importance given to English worldwide, not just in academics, but as professionals.
- Difficulty in obtaining good quality graduate programs in Spanish outside of Puerto Rico.
- Difficulty and fear when communicating with outside universities; occasional difficulty in filling out documents; difficulty in obtaining internships in United States.
- The first problem lies with the public education in Puerto Rico which does not provide a good background in English; lack of fluent knowledge of English limits the capacity to express ideas clearly, or what one wants to convey; be able to think simultaneously in both languages for effective communication; the disadvantage of communicating with others whose first language is English, to express the ideas in a logical manner, to be really able to transmit the ideas correctly.
- Exposure to complicated terminologies for a large number of students especially when they have not received good education in English; for many students, access to technology and a database is limited because all instructions are generally in English.
- Difficulty in conducting research and other works for agencies where principally English is utilized; in writing technical papers and research thesis in English.

External Observations:

Some of the matching perspectives on issues of the Puerto Rican educational system were provided by Thomas F. Juliano, ASEE Academic Programs Manager, after his recent visit to Puerto Rico during September 2007:

- *Language barrier:* Since the official language of PR is Spanish, students may be hesitant to apply for things that require extensive use of the English language.
- *Essay writing:* One key aspect that seemed to be missing in the PR education system, compared to the states, is that writing is not stressed as much. They are taught to write in a more “flowery” style, so that making concise statements and essays is difficult for them. They are generally not taught how to write for a specific audience, although some have experience with technical writing in the form of a journal paper or undergraduate project thesis. Further, writing centers

to assist them on improving essays are present in some locations, but limited. This difficulty transcended the “English vs. Spanish” issue and seems like it would persist even if essays were accepted in Spanish.

- *GRE score:* Puerto Rican universities do not require the GRE, although they have a test that is similar in flavor, but specific to PR. Again, because of the language difference, their scores tend to be lower even if they are highly qualified to do graduate research.
- Overall, students are highly familiar with and trained in the research arena. It is rare for an undergraduate student in the sciences to graduate with a BS degree without any hands-on research experience. An average student’s technical knowledge and skill set seems to be more intensive than in the states. Their engineering undergraduate degrees require a five-year program.

Standardized Tests – The GRE:

At the University of Puerto Rico – Mayagüez Campus, GRE is required for admission in only three doctoral programs; namely, Biology (BIOL), Computer Information Sciences and Engineering (CISE), and Applied Chemistry (QUIM). Each graduate program uses the GRE scores uniquely. Cited below are responses received from Biology and Chemistry departments.

Biology: GRE is one of the few - actually only - "standardized" tools that we have. Of course it is only standard for English speakers. However, we do not require a minimum score, only that the students present the score they got. We need time to evaluate the minimum score needed to be successful in our program. That will require some time for those who presented scores to pass through our system and time for us to evaluate the quality of those who were successful. Language is an issue in that it might limit applications for those students who are not affluent enough to take it, but honestly I don't think it is an onerous request to make of them. I strongly support the continued request of the GRE of our potential graduate students.

This has been a topic of discussion among the graduate committee members several times; we have just recently started to use the GRE. Initially we requested both the subject and the general exam but our applications dropped to 0-1 per semester. Since we have been requiring the general exam the number of applicants has also dropped but we are receiving a good number (~17-20). In the past there were times when we received 40-50 applications per semester. The justification for the exam was to have one requirement that irrespective of where the student came from, the exam was the same. For us it is an additional requirement. We are not requesting a specific score because we want to collect data for five years and link the scores to performance. We went to a talk offered by ETS about the EXADEP Exam (Spanish) and inquired if the GRE and the EXADEP were equivalent exams. We were informed that EXADEP was not intended for science; it was initially put together for law school. In terms of the language, our feeling is that the universal language for science is English, and therefore as scientists, we should be able to take the exam. Since we request the TOEFL, at least for the foreign students, we have a way to identify major problems with the language.

Chemistry: The GRE aptitude test has been required by the Department of Chemistry since January of 2004, when the Ph.D. program was started. The GRE aptitude test is considered in the evaluation of applicants that want to earn MS or Ph.D. degrees, and 15% of the evaluation is based on GRE scores. A minimum of 1.5 is required in the Analytical section of the GRE. The number of applications from international students has decreased from 15 per semester to two per semester as a consequence of this requirement. However, before the GRE test was adopted as a requirement, it was very difficult for the Graduate Committee to compare the records of the 15 applicants and choose among them. The applications that are received now are from very good students that often prepare for the GRE exam by taking additional English courses. The GRE test scores for students from CISE, QUIM and BIOL are as follows:

| | MIN | MAX |
|---------------|-----|-----|
| Verbal: | 210 | 610 |
| Quantitative: | 200 | 800 |
| Analytical: | 0 | 4.5 |

Michigan Placement Test Results – Dept. of English, Univ. of Puerto Rico, Mayaguez
Pre-Testing and Post-Testing of INGL 3201 (English Composition & Reading) - Spring 2006; INGL 3101 (Basic Course in English) and INGL 3201, INGL 3202 (English Composition & Reading) - Fall 2006
(Extracted from a report by Judy Casey, Ed. D., Assessment Coordinator, Department of English dated December 24, 2006).

The use of the Michigan English Placement Test, a norm-referenced, standardized proficiency test, in one section of INGL 3201 (English Composition & Reading) during Spring 2006 gave useful data to the course committee members and to the Department of English as well. The students were given pre- and post-tests at the start and end of Spring 2006. The Michigan Test provided a measure of external validity for assessment within the Department of English, as it allowed a comparison of UPRM students with their peers in the U.S. who were enrolled in ESL courses at the university level, or who were enrolled in intensive English programs at the university level.

Although the Michigan Test provided external validity to the English Department's assessment plan, its greater and more immediate use was to inform the Department and all faculty of the need to coordinate and **improve teaching and learning** in our basic track, with a **particular focus on grammar and listening. Speaking and listening cannot be separated, and this aspect of English learning is often ignored** by faculty, who feel that students may not be able to access their deeper thoughts unless they use Spanish; thus most classroom discussions in the basic track (to the best of their knowledge) are held in Spanish, with only a writing product required in the English language.

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